

1/6

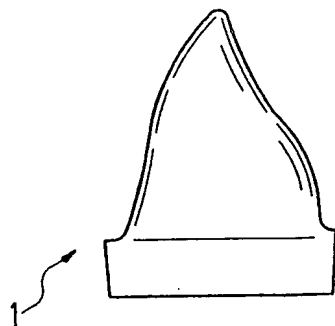


Fig. 1

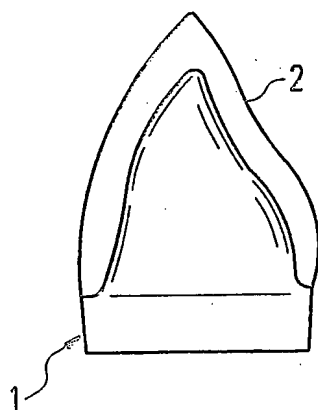


Fig. 2

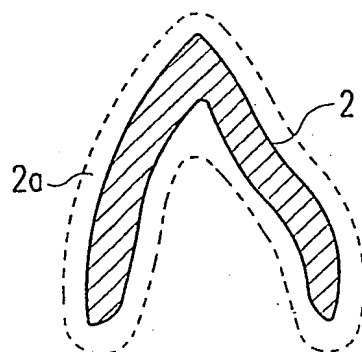


Fig. 3

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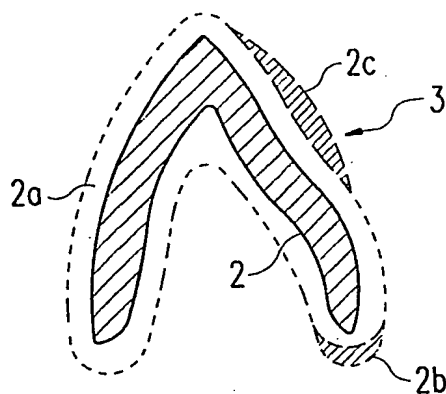


Fig. 4

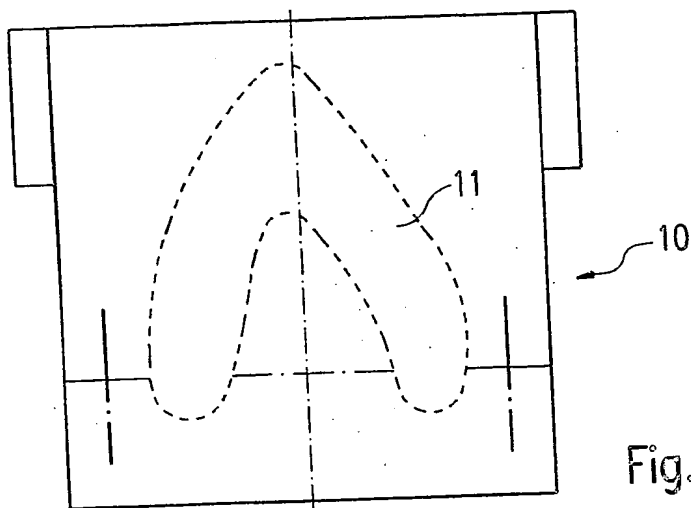


Fig. 5

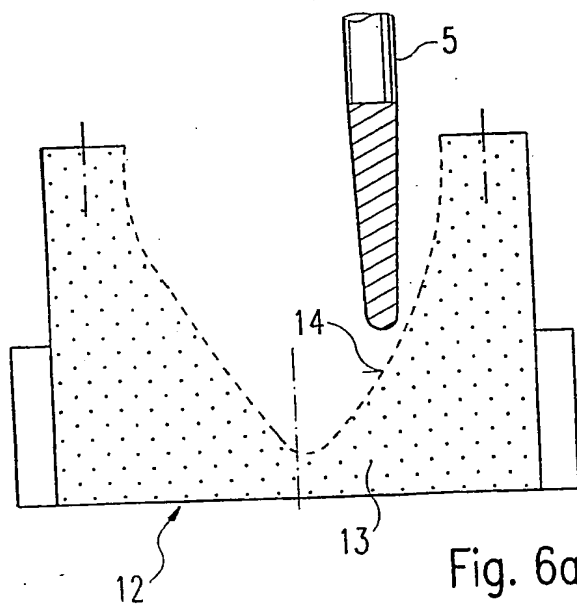


Fig. 6a

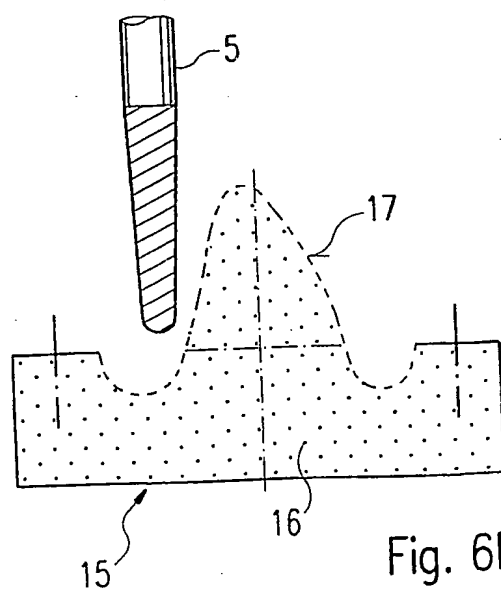
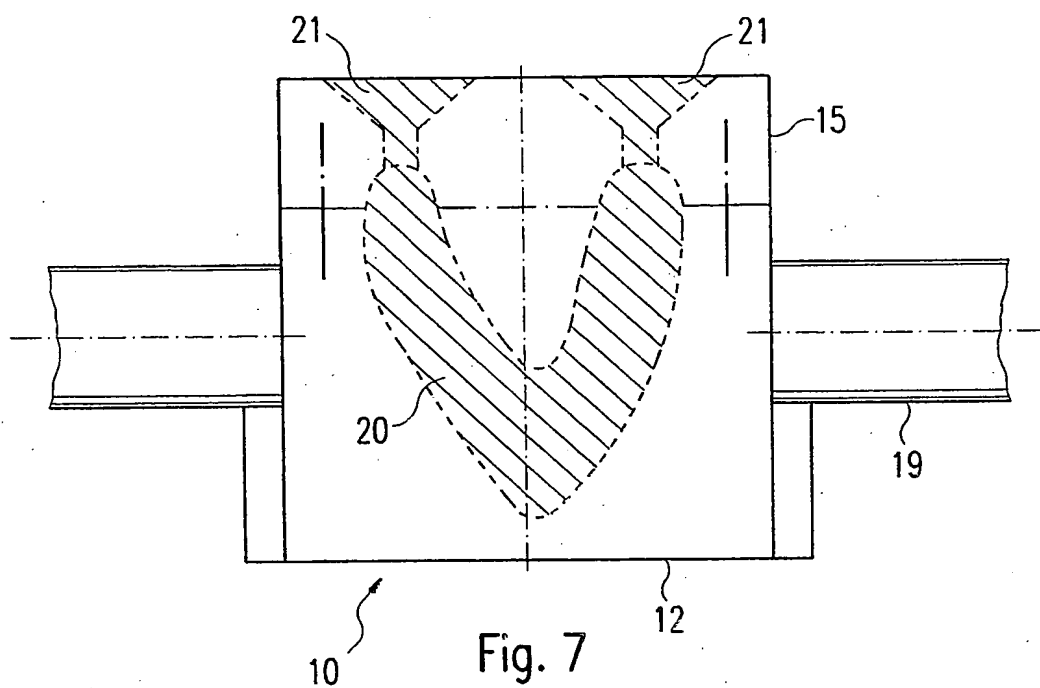


Fig. 6b



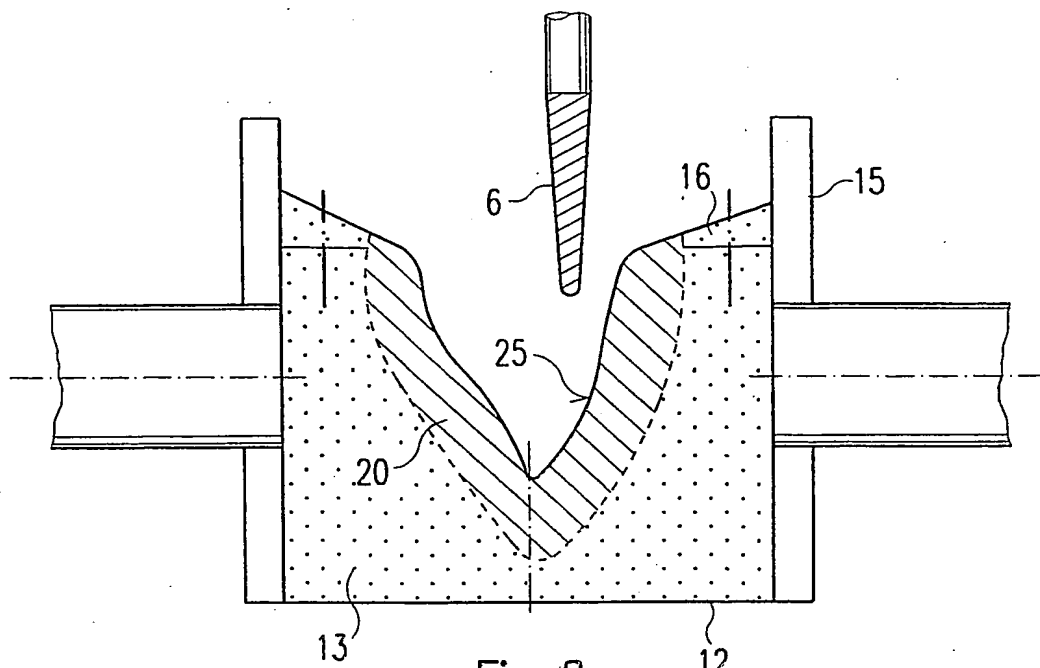


Fig. 8

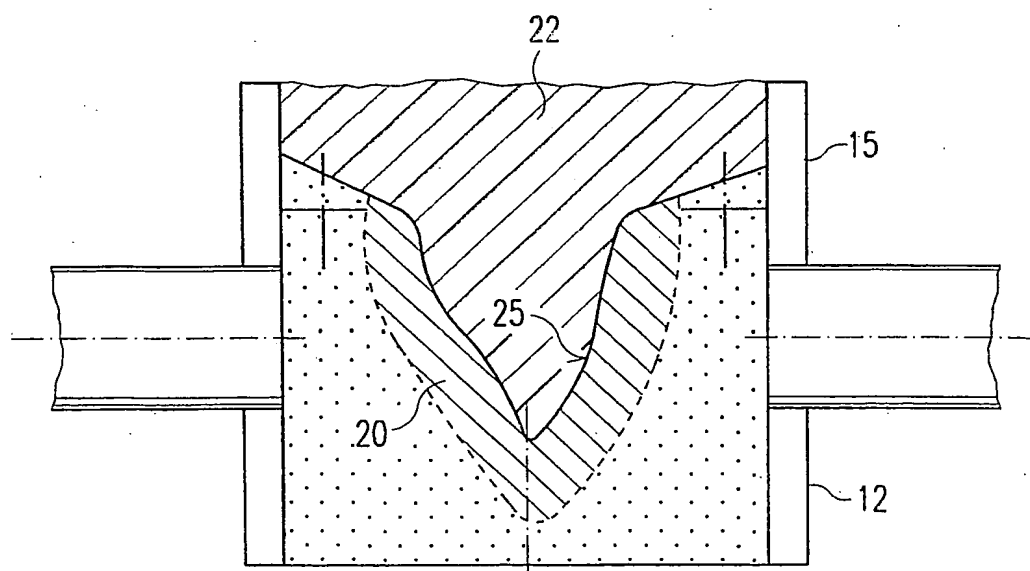


Fig. 9

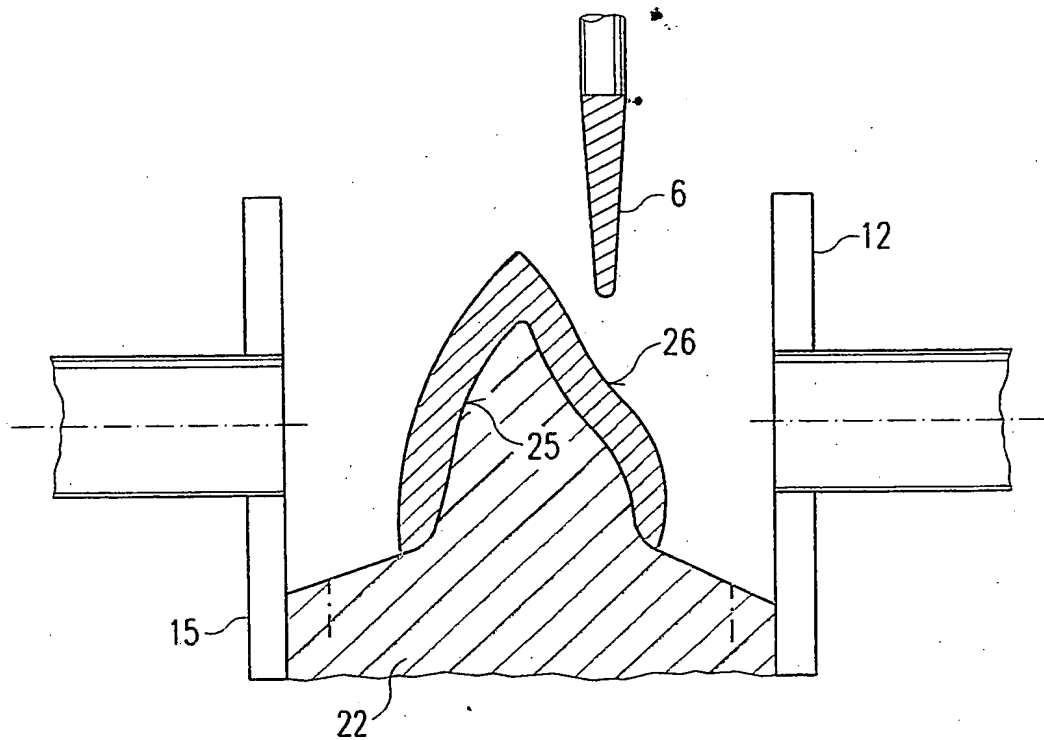


Fig. 10

Produce individual gold cap in the classical gold casting method

Produce individual gold cap CAD-Casting-CAM

No.	Operational Group	Process				No	Operational Group	Process			
		Manual Work	Automat. Run	PC Work	Machine Tool			Manual Work	Automat. Run	PC Work	Machine Tool
1	Preparatory operations	K				1	Preparatory operations	K			
2	Deep draw foil cap	M				2	Optically measure stump by scanning		X	K	
3	Adapt foil cap to stump	M				3	Automatic surface reconstruction		X	K	
4	Insulate stump	K				4	Construct crown cap CAD-3D			K	
5	Fix foil cap	M				5	Automatically generate offset on CAD-3D model		X	K	
6	Model crown in wax	L				6	Automatically generate CAM-NC program for coquille			K	
7	Lacquer model	K				7	Place coquille blank(s) in mounting bridge	K			
8	Prepare casting	M				8	5-axis mill coquille mould		X		X
9	Prepare muffle	M				9	Automatically generate CAM-NC program for crown cap		X	K	
10	Produce bedding mass slurry	M				10	Remove finished coquille/coquille-halves from mounting bridge	K			
11	Fine bedding in	K				11	Cast coquille with noble metal or Co Cr Mo-alloy	M			
12	Bedding in	M				12	Reposition casting with coquille in mounting bridge	K			
13	Wax out muffle and pre-warm		X			13	Mill out cavity side of the crown cap from the casting		X		X
14	Casting	K				14	Backing embed cavity side	M			
15	Bedding out	M				15	Mill occlusal side		X		X
16	Finish clean cast blank	M				16	Release crown cap from bedding plastic	K			
17	Separate inlet channel	M				17	If appropriate, slightly manually correct crown cap	K			
18	Work with the hand piece	L				18	Blast crown cap	K			
19	Blast crown cap	K				19	Clean crown cap and stump	K			
20	Clean crown cap and stump	K				20	Final operations	K			
21	Final operations	K									

Manual Work Time Duration Short (K) Medium (M) Long (L)

K M L

Fig. 11